Amendments to the Claims

1. (Cancelled)

2. (Previously Presented) An apparatus for displaying a modulated signal representing symbols of information to observe distortions comprising:

means for deriving quadrature component signals and a symbol clock from the modulated signal;

means for generating a sample clock having a period equal to the symbol clock, the sample clock being shifted one-half period in phase with respect to the symbol clock;

means for sampling the quadrature component signals with the sample clock to produce pseudo-symbols as pairs of pseudo-symbols about a symbol sample point for each symbol; and

means for displaying the pseudo-symbols on a quadrature coordinate plane.

3. (Previously Presented) The apparatus as recited in claim 2 further comprising means for generating a template for the displaying means representing an ideal modulated signal.

4. (Original) The apparatus as recited in claim 3 further comprising means for determining a distortion index as a function of the number of pseudo-symbols that are outside the template.

5. (Original) The apparatus as recited in claim 3 wherein the template comprises a plurality of circles representing clusters of the pseudo-symbols for each symbol of the ideal modulated signal.

6. (Original) The apparatus as recited in claim 5 wherein each circle comprises a cluster outline having a diameter that is a function of an outer pair of pseudo-symbols for the corresponding symbol of the ideal modulated signal.

7. (Previously Presented) The apparatus as recited in claim 2 wherein the displaying means comprises means for zooming in on individual clusters of pseudo-symbols to observe whether

the arrangement of pseudo-symbols in the cluster is similar to the arrangement of clusters on the quadrature coordinate plane.

8. (Cancelled)

9. (Currently Amended) A method of ~~generating a~~ display<u>ing pseudo-symbols on a receiver</u> ~~for a modulated signal representing symbols of information~~ comprising the steps of:

receiving a <u>modulated signal representing symbols of information;</u>

deriving quadrature component signals from the modulated signal;

generating a sample clock having a period equal to the period of a symbol clock for the modulated signal, the sample clock being shifted one-half period in phase with respect to the symbol clock;

sampling the quadrature component signals using the sample clock to produce pseudo-symbols as pairs of pseudo-symbols about a symbol sample point for each symbol; and

displaying the pseudo-symbols on a quadrature coordinate plane.

10. (Previously Presented) The method as recited in claim 9 further comprising the steps of:

generating a template representing locations of clusters of the pseudo-symbols for an ideal modulated signal, each cluster representing a symbol location; and

displaying the template on the quadrature coordinate plane.

11. (Original) The method as recited in claim 10 wherein the generating step comprises the step of calculating a diameter of a circle for each location, the template having the circle at each location representing the symbol location for the ideal modulated signal.

12. (Original) The method as recited in claim 11 wherein the calculating step comprises the steps of:

determining outer pseudo-symbol pairs for each symbol of the ideal modulated signal; and

calculating the diameter based on the outer pseudo-symbol pairs.

13. (Original) The method as recited in claim 10 further comprising the step of determining a quantitative index of distortion in the modulated signal as a function of the number of pseudo-symbols outside the template.

14. (Previously Presented) The method as recited in claim 9 wherein the displaying step comprises the step of zooming in on individual clusters of pseudo-symbols for the modulated signal to observe whether the arrangement of pseudo-symbols within the cluster is similar to the arrangement of the clusters on the quadrature coordinate plane.